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TRADE AND DEVELOPMENT BOARD
Standing Committee on Developing
Services Sectors: Fostering
Competitive Services Sectors in
Developing Countries: INSURANCE
Second session
Geneva, 4 July 1994
Item 2 of the provisional agenda

[INSURANCE]

ADOPTION OF THE AGENDA AND ORGANIZATION OF WORK

Provisional agenda and annotations to the provisional agenda

I. PROVISIONAL AGENDA

1. Election of officers
2. Adoption of the agenda and organization of work
3. Review of developments in the insurance market
4. Review of progress made on the work programme
5. Consideration of specific items of the work programme:
   - (a) Review on critical areas with regard to insurance legislation, regulation and supervision (see item B.1.(a) of the work programme)
   - (b) Privatization and liberalization in insurance
   - (c) Expanding the insurance sector in agriculture and rural insurance
   - (d) Exchange of experiences on creditor insurance
   - (e) Reinsurance (see items B.1.(c) and B.2. of the work programme)
6. Provisional agenda for the third session of the Standing Committee, Insurance
7. Other business
8. Adoption of the report of the Standing Committee, Insurance, to the Trade and Development Board.

GE.94-51781 (E)

II. ANNOTATIONS TO THE PROVISIONAL AGENDA

Item 1: Election of officers

In accordance with rule 18 of the rules of procedure of the main Committees of the Trade and Development Board, the Standing Committee shall elect a Chairman, five Vice-Chairmen and a Rapporteur from among the representatives of its members, taking into account the need to ensure an equitable geographical distribution. Moreover, rule 19 of the same rules of procedure states that the Bureau of the Committee shall consist of seven members, including four members from Groups A and C combined, two members from Group B and one member from Group D, referred to in the annex to General Assembly resolution 1995 (XIX) as amended.

Item 2: Adoption of the agenda and organization of work

The Standing Committee may wish to adopt the provisional agenda, as set out in section I above. Section III and the annexes to this note contain suggestions for the organization of the work of the Committee and a list of background documents.

Item 3: Review of developments in the insurance market

Regarding developments in the insurance market, one of the areas that in recent years has been of growing concern to developing countries is the threat to their development achievements and prospects by natural catastrophes and risks associated with insufficiently controlled technological and economic progress. This problem area is increasingly also being seen in the context of speculation about possible climate change. The UNCTAD secretariat has prepared a sessional document entitled "Alternatives for insurance of catastrophes, environmental impairments and large risks in developing countries" (TD/B/CN.4/32). The document raises issues to be addressed by all countries wishing to have in place insurance and risk management programmes to cover different types of catastrophes, environmental impairments and large risks.

Two background documents entitled "Insurance in developing countries: An assessment and review of developments (1989-1993)" (UNCTAD/SDD/INS/2/Rev.1) and "Statistical survey on insurance and reinsurance operations in developing countries 1983-1990" (UNCTAD/SDD/INS/5) have also been prepared in relation to this item.

The Standing Committee may wish to take action on the basis of these reports and provide guidance for future activities.

Item 4: Review of progress made on the work programme

The UNCTAD secretariat has prepared a progress report entitled "Review of activities of the secretariat pertaining to the work programme" (TD/B/CN.4/31). This report informs the Standing Committee on issues in the work programme on which work has been carried out by the secretariat between the first and second sessions of the Standing Committee. It addresses the

main areas of the work programme: promoting transparency, fostering competitive insurance services and strengthening technical cooperation and human resources development.

The report provides a brief review of the documents presented and in some cases proposes possible follow-up. It should assist the Standing Committee in assessing the work accomplished so far. More details on reported activities and studies can be found in the respective sessional and background documents, a list of which is provided in annex II below. The Standing Committee may wish to take action on the basis of this report and provide guidance for future activities.

Item 5: Consideration of specific items of the work programme

In response to agenda item "5 (c) Expanding the insurance sector in agriculture and rural insurance", the UNCTAD secretariat has prepared a sessional document entitled "Issues of agricultural insurance in developing countries" (TD/B/CN.4/30). The report addresses issues facing the introduction and expansion of agricultural and rural insurance in developing countries. For more details on specific issues the background document "Agricultural insurance in developing countries" (UNCTAD/SDD/INS/1/Rev.1) may also be consulted.

Concerning the other elements of item 5 of the provisional agenda, the progress report (TD/B/CN.4/31) gives a brief review of the activities and studies undertaken by the secretariat. A list of background documents related to items 5 (a), 5 (b) and 5 (c) is provided in annex II.

The Standing Committee may wish to take action on the basis of these reports and provide guidance for future activities.

Item 6: Provisional agenda for the third session of the Standing Committee, Insurance

In accordance with rule 8 of the rules of procedure of the main Committees, the secretariat will submit during the session a draft provisional agenda for the third session of the Standing Committee, Insurance, tentatively scheduled to be convened from 29 May to 2 June 1995.

Item 7: Other business

Item 8: Adoption of the report of the Standing Committee, Insurance, to the Trade and Development Board

The report of the Standing Committee, Insurance, will be submitted to the Trade and Development Board at the first part of its forty-first session.

III. ORGANIZATION OF WORK OF THE STANDING COMMITTEE

Pursuant to a decision taken by the Trade and Development Board at the first part of its fortieth session, the Standing Committee's session on Insurance is scheduled for five working days, from 4 to 8 July 1994. The session will commence on Monday, 4 July at 11 o'clock. Normal meeting hours are from 10 a.m. to 1 p.m. and from 3 p.m. to 6 p.m. Limited facilities for group meetings will be available on request.

Regarding the organization of work, it is suggested that the Committee, after the general debate, may wish to convert the plenary into an informal meeting.

A tentative schedule of meetings, drawn up on the assumption that the plenary meeting will be converted into an informal meeting, is shown in annex I. To facilitate the work of the Standing Committee, a suggestion is made under the tentative schedule of meetings to consider agenda items under a different chronological order.

Annex I

TENTATIVE SCHEDULE OF MEETINGS

Monday, 4 July 11 a.m. (Plenary)	Item 1:	Election of officers
	Item 2:	Adoption of the agenda and organization of work
	General debate	
Monday, 4 July 3 p.m. (Plenary followed by informals)	General debate (concluded)	
	Item 5:	Consideration of specific items of the work programme (Agricultural Insurance)
Tuesday, 5 July 10 a.m. (Informals)	Item 5:	(continued)
Tuesday, 5 July 3 p.m. (Informals)	Item 3:	Review of developments in the insurance market (catastrophes, environmental impairments and large risks insurance).
Wed., 6 July 10 a.m. (Informals)	Item 3:	(continued)
Wed., 6 July 3 p.m. (Informals)	Item 4:	Review of progress made on the work programme
Thursday, 7 July 10 a.m. (Informals)	Item 4:	(continued)
Thursday, 7 July 3 p.m. (Informals)	Item 4:	(continued)
	Item 6:	Provisional agenda for the third session of the Standing Committee, Insurance
Friday, 8 July (p.m.) (Plenary)	Item 6:	(concluded)
	Item 7:	Other business
	Item 8:	Adoption of the report of the Standing Committee, Insurance, to the Trade and Development Board

Annex II

CHECKLIST OF DOCUMENTS

For ease of reference, sessional and background documents are listed below under their respective items.

Sessional documents

Item 3: Alternatives for insurance of catastrophes, environmental impairments and large risks in developing countries (TD/B/CN.4/32).

Item 4: Review of activities of the secretariat pertaining to the work programme (TD/B/CN.4/31).

Item 5: Issues of agricultural insurance in developing countries (TD/B/CN.4/30).

Background documents

Promoting transparency: Insurance in developing countries: An assessment and review of developments (1989-1993), (UNCTAD/SDD/INS/2/Rev.1);

Statistical survey on insurance and reinsurance operations in developing countries 1983-1990 (UNCTAD/SDD/INS/5).

Fostering competitive insurance services: Issues of insurance regulation and supervision relevant for developing countries (UNCTAD/SDD/INS/6);

Insurance in developing countries: Privatization of insurance enterprises and liberalization of insurance markets (UNCTAD/SDD/INS/3/Rev.1);

Agricultural insurance in developing countries (UNCTAD/SDD/INS/1/Rev.1);

The report of the Group of Experts on Agricultural Insurance (UNCTAD/SDD/INS/4).

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TRADE AND DEVELOPMENT BOARD
Standing Committee on Developing
Services Sectors: Fostering
Competitive Services Sectors in
Developing Countries: INSURANCE
Second session
Geneva, 4 July 1994
Item 5 (c) of the provisional agenda

[INSURANCE]

ISSUES OF AGRICULTURAL INSURANCE IN DEVELOPING COUNTRIES

CONTENTS

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GE.94-52242

PREFACE

(i) Following the eighth session of UNCTAD, held in Cartagena in February 1992, insurance was incorporated into the work of the newly created Standing Committee on Developing Services Sectors: Fostering Competitive Services Sectors in Developing Countries, which will hold separate sessions on insurance.

(ii) At its first session on insurance, from 1 to 5 February 1993, the Committee's Work Programme on insurance was established. It calls for the Committee, under part "B. Fostering Competitive Insurance Services", to examine linkages between insurance schemes, rural credit systems and development strategy in this sector, including the role of cooperatives. This study is intended to serve as a basis for this examination.

(iii) The document addresses the issues facing the introduction and expansion of different types of agricultural insurance in developing countries. It also discusses the possible economic benefits which might be gained by linking agricultural insurance to rural credit schemes. The report places emphasis not only on the contribution which agricultural insurance might make to an expansion of insurance markets in developing countries but also underscores the support it can provide for agricultural development. These benefits may encourage Governments to pay greater attention to agricultural and rural insurance in the future.

(iv) The document takes account of the recommendations and conclusions of the Group of Experts on Agricultural Insurance in Developing Countries, which was convened in early 1993 by the Secretary-General of UNCTAD. More detail on specific issues regarding the introduction and operation of agricultural insurance cover is given in the comprehensive background study "Agricultural Insurance in Developing Countries" (UNCTAD/SDD/INS/1/Rev.1) which supports and complements this paper.

(v) The first chapter notes that, in developing countries, insurance is largely absent from rural areas. Chapter II considers the selection of a country's agricultural sub-sectors where insurance can be beneficial and viable. Chapter III looks at the types of insurance cover appropriate for the different agricultural sectors. Chapter IV suggests that insurers build up partnerships with other providers of services to rural areas. Chapter V highlights the importance of agricultural insurance in protecting both the farmers and the lenders in agricultural credit schemes. Chapter VI examines the benefits for the insurance industry in developing countries of expanding rural and agricultural insurance. Finally, chapter VII highlights some of the long-term development benefits of agricultural insurance.

Chapter I

INTRODUCTION

1. Traditionally, insurance in developing countries has provided for risks in urban areas. There are several reasons for this. One is that insurance was introduced in these countries in conjunction with their overseas trade and their emerging modern production sector.

2. This has had important consequences for the nature of the young industry. From the very beginning, it did not have a mass basis. Geared to the relatively small industrial sector and the newly emerging middle class, insurance was beyond the reach and largely outside the sphere of interest of the low-income classes associated with the agricultural sector and its related activities. However, in many developing countries, this very sector constitutes an essential segment of economic and social life.

3. Among the most basic requirements for insurance are operations of a sufficiently large scale, permitting adequate compensation of risks through a wide spread of exposures. In a number of poorer developing countries, the modern industrial production sector does not, however, provide for a large pool of similar risks. Hence it is impossible for companies to build up balanced insurance portfolios. In order to enlarge their operating base, insurers must develop new markets and win new groups of clients.

4. In the modern industrial production sector and among the urban middle-class population of developing countries, insurance has made impressive gains in recent decades. While there are still possibilities for expansion, its scope is somewhat limited, particularly in countries which have experienced slow growth of their industrial and modern sector. However, opportunities do exist in these countries, in the rural areas and the agricultural and informal production sector, where insurance has so far hardly made any inroads.

5. A major hurdle in penetrating the agricultural sector is its generally low productivity and the fact that, as a consequence, farmers are normally below the "threshold of insurability". In most developing countries, however, there are areas where agriculture is productive, or is becoming productive. These would be able to afford a reasonable amount of insurance. The tasks for the insurance industry lies in identifying these areas and to make efforts to bring them insurance services.

Chapter II

THE INSURANCE POTENTIAL OF DIFFERENT AGRICULTURAL SUBSECTORS

6. For the purpose of identifying those areas in the agricultural production sector which could afford insurance, it seems useful to classify the farming sector into four sub-sectors:

(i) traditional, or subsistence, agriculture
(ii) semi-commercial and emerging agriculture
(iii) commercial agriculture
(iv) specialized agricultural production systems

The problems of insurance for each of these subsectors differ.

7. The commercial farming sector is tied to the modern sector of the economy. It produces for the market, often foreign markets, using standardized inputs and modern technology; it relies on bank credit and uses modern marketing channels. The scale of operations is large; production is standardized. Risk management is practiced. Plantations of coffee, tea, cocoa, oilseeds, rubber, and staple or cash crops and poultry farms are typical examples of this sector.

8. Specialized agricultural production consists of non-traditional or specialized items, often produced for export. Large-scale production of vegetables and fruits as well as horticulture, hydroponic vegetable production and aquaculture farms belong to this category. Typically, considerable capital is involved; use is made of credit. Modern technology is increasingly being adopted and risk management practiced. In many developing countries such activities are increasing rapidly. They are often supported by the Government and the banking sector.

9. The semi-commercial and emerging sector comprises farmers of small and medium-sized farms in transition from subsistence farming to production for the market. They generally have access to some modern technology, to quality inputs of seeds, fertilizers and pesticides and, besides public extension services, sometimes profit from development projects. This sector includes medium-size farmers producing arable crops such as rice, wheat, maize, and some farmers producing cash crops such as cotton, sugar cane, tobacco, coffee and cocoa on a small scale basis. Sometimes they have close links to a processing unit. Sugar-cane growers, for example, supply their output to a sugar mill, tobacco farmers to a tobacco plant; a farmer who rears cattle may supply milk to a marketing board or cooperative.

10. The traditional agricultural sector consists of numerous farmers and peasants of small and very small holdings who produce staple and cash crops and food, often on a subsistence level and for their own use. Often agricultural

productivity is very low; little modern technology is employed. Such farmers often live outside the monetized economy. Depending on the general level of development of the respective country, the number of people associated with this subsector can be substantial.

11. Insurers considering the development of programmes of agricultural insurance should clearly identify the varying needs of these different agricultural subsectors.

12. The commercial agricultural sector seems to offer great potential for insurers. It appears that in many developing countries it has not attracted the attention of the insurance profession. Only in a few countries have insurers developed a coherent strategy on how to bring services to this subsector in an organized fashion.

13. As regards the specialized agricultural sector, insurance companies often provide covers, supported by reinsurers. But considerable untapped opportunities remain. Insurance companies might profitably accord the same sort of attention to gain business in this subsector as they exhibit to book business from industrial firms in urban areas.

14. The semi-commercial sector is expanding rapidly and has an important role to play in achieving productivity gains in agriculture. Opportunities exist for gradually introducing insurance services. The potential lies in the large number of people employed, people who are latent clients for insurance. This subsector is also gaining increasing attention from Governments and aid agencies with the objective of assisting it to improve its efficiency.

15. In some countries farmers in this subsector benefit from a public subsidized insurance scheme. Such schemes have often been developed essentially for the subsistence sector, but the boundaries with the emerging agricultural sector are fluid. Insurance schemes for the subsistence sector usually cover one or two crops only. A vast potential exists to be tapped by extending cover to other crops produced by the semi-commercial sector. Owing to the preoccupation with the needs of administering welfare-oriented schemes for the subsistence sector, and with developing cover for the commercial and specialist production sectors, authorities and insurers have not addressed adequately the problems of the semi-commercial sector. This sector has, however, great development potential.

16. As regards the traditional, or subsistence, sector of agriculture, private companies are unlikely to be willing or able to provide suitable insurance cover. If the government is operating or thinking of operating an insurance scheme for this group of farmers, private insurers might consider whether or not they could cooperate with it. In many countries, great efforts are being made to improve the productivity of this sub-sector and help it enter the monetized economy. Insurers should be ready to accompany them as soon as there are signs of a take-off.

Chapter III

SELECTION OF APPROPRIATE FORMS OF COVER

1. Crop insurance

17. Since the production of crops is usually the most important segment of agriculture, it comes as no surprise that crop insurance has traditionally attracted most attention and is the major component of agricultural insurance. In answer to a questionnaire on agricultural insurance, which the UNCTAD secretariat sent in 1991 to all developing countries, 44 countries/territories reported some form of agricultural insurance. Of these, 25 countries (or 57 per cent) reported offering specific insurance for crops. Of the latter countries, 19 (or 76 per cent) reported that crop insurance was a regular feature. Problems with this type of insurance are also the most diverse of the different types of agricultural insurance.

18. Insurance companies could try to offer or expand some crop insurance covers, possibly on a modest and limited scale at first. As experience is gained, infrastructure built up and marketing approaches consolidated, more comprehensive and complicated covers might then be offered.

19. Which crop, or crops, are taken on for insurance will depend upon a number of factors. If the cultivation of one or two crops constitutes the bulk of the agricultural activity of a country or territory, for example sugar cane in Mauritius and bananas in the Windward Islands, the choice is more obvious. In countries where a number of crops are grown, primarily two factors are important: the stability of the cultivation system and the sector of agriculture meant to be served.

(i) Commercial sector

20. In the commercial agricultural sector, the design of crop insurance has to based on considerations of economic viability. The crop to be insured, the risks to be covered and the level of indemnity will no doubt differ from one country to another and, within a country, from one region to another. Generally speaking, cash crops whose production systems have stabilized and which are concentrated in small areas, in contrast to staple crops cultivated by numerous small farmers throughout the region or the country, lend themselves to insurance on a commercial basis.

21. Initially a few selected crops acknowledged to be profitable may be insured. Insurers should closely examine the economics before deciding to develop suitable cover. Often the business plan submitted to the bank to obtain credit provides a good guide.

22. A start can be made with limited cover. The perils could be named, indemnity confined to a percentage of input costs and a reasonable franchise and/or a deductible imposed. A limited cover does not mean that only limited benefits would accrue to the farmer, since serious losses could still be within the scope of the cover.

23. Underwriting should be on an individual basis and the cover should be tailor-made to the specific requirements. The management of the farm is an important factor for determining the risk exposures. Insurers have to insist that basic risk management practices be applied. Formulation of detailed and precise underwriting guidelines, and pre-acceptance surveys of risk go a long way towards building up a profitable business. A properly designed and adequately answered questionnaire is an important and cost-effective tool in underwriting risks of this nature.[1] The exact area of the plot covered, the production cycle and the period of insurance need to be clearly specified.

24. Rating has to be flexible, taking into account the variety of factors that influence the risk. It is good policy to provide a no-claim bonus and a loading for adverse claims, provided that the workload involved in making the calculations is not too onerous. The approach usually adopted is to increase the premium if claims have been made frequently, but to limit the increase or not to make any increase at all if a large claim has occurred as a result of a catastrophe beyond the farmer's control, such as a locust attack. The farmer should share a part of the loss so that his interest in the cultivation process and in minimizing the extent of loss is maintained. This can be done by incorporating a suitable deductible or franchise or both. It is fruitful to build in an incentive for the farmer to make a claim only when the loss is clearly likely to exceed the franchise. Processing trivial claims is a waste of resources.

25. Continuity of insurance for a number of years is important. Only on this basis is there a chance for both parties to balance claims and premiums over time.[2]

(ii) Specialized production systems

26. The considerations relevant for the commercial sector are also applicable to this subsector. However, further refinement of the cover may be required. For insurance purposes, units in this sector are similar to an industrial enterprise and should be treated accordingly.

27. Activities in this sector are characterized by the adoption of superior technology and by high capital-intensity. The cover will have to be developed individually and separately for each of the units and address their specific requirements.

28. The perils to be insured would call for a discussion with the persons concerned. It has been common experience that the insureds are usually well aware of the potential damage that can be caused by various hazards and, for the

sake of economy in premium cost, will be prepared to opt for limited perils' cover.

29. The profitability of the venture should be examined in detail before designing the cover. Costs of various inputs and overheads and the value of the likely output should be scrutinized. Since the variations can be substantial, insurance should be offered only if the margins are adequate.

30. The technology employed and the inputs used may undergo changes when, for example, the farmer switches to more modern machinery or a better variety of seeds as they become available in the country. Hence, in addition to historical data, the current situation and management practices should be examined when negotiating the terms and conditions of insurance.

31. It is usual to insist on insurance of the whole of the farm and not allow insurance on selected items only, as is the case in property insurance where the insured can opt to insure selected blocks only. It is also usual to stipulate that damage to an individual section of what has been insured will not be indemnified, since this could be made up by higher production in other sections, and only the overall results will determine the indemnity.

32. To avoid differing interpretations in the eventuality of a claim, the benefits provided by the policy should be clearly explained at the beginning. Unlike property insurance, the practices followed in crop insurance are not yet well established or accepted. This creates scope for misunderstandings, subsequent arguments and even fraud.

(iii) Semi-commercial and emerging sector

33. Provision of insurance to this sector has to be evolutionary. To begin with, small schemes covering a limited area, a specific line of activity or a simple production process can be taken up, possibly being designated as a "pilot" project so that subsequent modifications are easier to make. The desired spread should be achieved by having a large number of schemes geographically well dispersed. This would also avoid the problem of accumulation of risks.

34. Because of the small size of farm operations, the sale and servicing of insurance on an individual basis may be difficult. Offering insurance entirely on a voluntary basis may also lead to problems of anti-selection. As a possible solution, farmers could combine in groups of risk categories according to some criteria, such as production techniques employed, previous credit history, assets and land holdings, access to irrigation, etc. Members of an agricultural cooperative could also make up suit-able groups.

35. The needs of farmers should be carefully identified when products and operational strategies are formulated. It is prudent to start with lines of business where transactions are relatively easy in terms of design and loss assessment. It is also advisable to limit the scope of the cover to named perils, so that the problems associated with all-risk and yield-based insurance

protection can be avoided. If a single peril such as fire or hail does not meet the demands of the market, selected additional perils may be added, but each one cautiously, and only after due consideration. If certain allied perils show the same loss symptom, the cover could be extended to these because it would be difficult to distinguish which losses are attributable to each of the perils. For example, when flood has been covered, risks of inundation, waterlogging and specified diseases consequent to high humidity could be added, depending upon the terrain, with suitable additional premium. It may also be advisable to provide indemnity on the basis of input costs rather than fall in yield.

36. The recommended group approach for delivery of insurance suggests a rating pattern based on area or group experience. Complete historical data are unlikely to be available, and a strict actuarial calculation of premiums may not be possible. A beginning, however, can be made by rating on a comparative basis, as is done in many instances of property insurance. Here again, too fine a distinction may not be necessary or worthwhile, and a broad category of risk classification and rating may suffice, as in the case of many industrial risks rated on the principle of broad banding.

37. It may not yet be possible to underwrite risks on an individual basis and pre-acceptance surveys may be commercially non-viable. Risks may be too small for such an exercise. If there is a sufficiently large number of more or less similar risks, authority may be given to lower grade insurance officials to accept risks if they fall within an established underwriting policy. This is frequent practice in the case of motor insurance.[3] A much stricter approach would be necessary for adjustment of loss. An "individual approach" in the settlement of claims could be introduced. Flexibility must be maintained. If a large number of similarly affected risks have suffered the same loss or damage differences are likely to be marginal, and all claims could be treated similarly.

38. Emphasis must be laid from the beginning on proper collection and collation of data at the operational level. Meaningful advances in the long run can be made only with strong statistical support. This has necessarily to be centralized. The cost of information technology has now come down to affordable levels and its utilization should be considered for compiling statistics, and keeping them updated, on the basis of returns filed. The expenditure on this procedure will be justified in terms of improved underwriting and settlement of losses. Alternatively, the job can be entrusted to an agency, or a statistical institute or a university with the necessary facilities. In the United States of America, many crop insurers belong to the National Association of Crop Insurance Services, which is a service organization to collect and analyze data on various crops across the country.

39. Incorporating a reasonable franchise and/or deductible would be worthwhile. This will ensure that sufficient efforts are made to minimize the loss when it occurs. As the insurer is relieved of very small claims, which are none the less costly to process, the price of insurance will also be lower.

40. The role of insurance as an instrument for promoting risk management practices should be recognized from the outset. This implies that insurance officials should not be content with simply booking business and processing claims. They should take an interest in the functioning of the scheme, participate in discussions, and make suggestions in respect of why and how any losses have occurred, and what can be done to avert them or reduce their severity.

41. The insurance needs of this sector should be increasingly taken up by private-sector companies, as this sector is expanding rapidly in many developing countries. However, insurance companies are of different sizes, a large number of them being small with limited capital funds, they may not be able to take great initiatives in agricultural insurance, unless one of them decides to specialize in the line. The logical solution would be for the leading companies to take the first steps. However, for an insurance company starting agricultural insurance there would be a substantial investment in developing insurance awareness and in creating a network on which other companies might then take a "free ride". This could discourage a company from taking meaningful and effective steps to be the first to move. A consortium or pool arrangement might therefore be useful.

42. The distribution of tasks between the industry and the government needs to be carefully examined. In this respect, the Group of Experts on Agricultural Insurance in Developing Countries, convened in early 1993 by the Secretary-General of UNCTAD, recommended as one option that governments take the responsibility for certain perils which carry a high risk and/or for perils beyond the capacity of insurance markets to assume, while leaving the more manageable risks to the insurance sector. This approach, the Experts pointed out, is followed in some developed economies.[4]

43. In considering whether to enter the semi-commercial or the subsistence subsector on a limited scale, private insurers should verify the extent of government support ear-marked for the development of this sector. Since heavy introductory investments are needed to deliver satisfactory services, it is essential for insurers to be able to rely on a minimum of infrastructure maintained by the government. It is also important to have a functioning extension service in place to advise farmers on economic production methods and monitor their performance and progress.

(iv) Traditional sector

44. Crop insurance schemes targeted at small, traditional and subsistence farmers may require premiums and/or administrative expenses to be subsidized by the government. It may also have to assume funding of possible deficits. Schemes implemented so far in developing countries have in most cases not been financially self-sufficient and have often required massive government subsidies. As a result, some of them have been discontinued or substantially modified in recent years.

45. While doubts have been expressed about the economic relevance and effectiveness of schemes for subsistence farmers, it is difficult to judge whether the reasons lie in the weaknesses of individual schemes or whether insurance for subsistence farmers as such represents an uneconomic use of scarce resources. It may be argued that what is relevant in the long run is that the aggregate direct and indirect benefits of a scheme - financial, social and psychological - to farmers and society as a whole should balance its total cost, this being shared by farmers and the rest of the community.[5] Another question that arises is what economic value should be attributed to the social security aspect provided to such a vast segment of society. Safety nets for the vulnerable strata of the population seldom come cheap, especially when these strata form a large part of the population.

46. Even if agricultural insurance schemes cannot be expected to be economically viable in the short run, they should be devised in a cost-effective manner and in such a way that they are not unduly demanding on state treasuries. In this connection, among the issues to be taken into consideration are the following.

47. First, the relevant programme should be based on a careful study and evaluation of the technical aspects involved. Over the years, these have been identified and discussed in a number of meetings and studies and are readily available to insurers.[6] New schemes should preferably be designed on the basis of input-cost rather than yield-based indemnity, in view of the lower cost. Secondly, the decision on its adoption should be preceded by a study of possible alternative strategies. In this context, the question to be addressed is: can the amount of any subsidy likely to be required for the crop insurance programme not be more productively utilized to help the small and traditional farmers in a direct and visible manner? Thirdly, insurance should be conceived and provided not in isolation but as part of a package of services - financial, in the shape of facilitating access to credit and providing an opportunity to save; technological, in terms of better seed, fertilizer, pesticides, etc.; an effective extension service; and facilities for the transport and marketing of produce. Fourthly, the "objectives" of the programme should be clearly outlined. Only when benchmarks and parameters have been defined can exaggerated expectations be avoided and effective monitoring take place. This may seem obvious but such factors are often ignored in practice. Fifth, the subsidy required to support the programme should be open, transparent and quantified, and not hidden or open-ended. If the community has to bear part of the cost of insurance schemes for the farmer, the extent of its responsibility should be known. In any case, proper budgetary or financial arrangements should be made for timely disbursement of the support. Finally, a regular evaluation and assessment of achievements and failures should be insisted upon. The preparation of a periodic cost-benefit analysis, based on a systematic and quantitative study of costs incurred and socioeconomic advantages derived, is too often avoided. There should be no hesitation in taking corrective action and modifying the scheme from time to time. Periodic changes, often radical, have been made in many programmes.

48. Another possible approach would be to have a simpler scheme for catastrophe cover, which becomes operative and the indemnity payable only when losses are substantial. This objective can be achieved by having a high franchise.[7] A franchise of 60 to 70 per cent has been suggested, but this may be too high, considering that farmers generally operate with a margin of around 15 per cent profit, if account is taken of family labour at the cost of hired hands.[8] A franchise of 40 to 50 per cent thus might be a better option.[9] In any case, a cover with a reasonably high franchise would have many advantages: premium rates would be low and affordable, problems of moral hazard would be averted, and administration would be simpler. Consequently, expenses would be contained, particularly if the insurance is linked to weather-related perils such as drought, hail, hurricane (including tornado, cyclone or typhoon), rainstorm and flood. It would provide protection for the farmers, ensuring that they are not totally devastated or ruined by an event beyond their control. The farmer is usually able to live through and survive normal variations in production by resorting to traditional means of managing fluctuations; Governments which lack the means for comprehensive programmes could therefore choose this option. It might be worthwhile to plan new schemes on this basis. As regards scaling down disbursements of ongoing programmes, it may be difficult to introduce a high franchise or other radical changes, but step-by-step measures could be taken to bring programmes gradually to a viable level. It should, however, be emphasized that since this will be a catastrophe cover, and such events occur only once in a while, it will be essential to maintain continuity of the programme. Once it is working satisfactorily, it could be gradually and cautiously extended.

49. Indemnification in cases of natural catastrophes and other disaster is without doubt an issue of special complexity in the context of agricultural insurance. Many developing countries do provide disaster relief when calamity strikes, but in an ad hoc manner. Since disbursements need to be made quickly in such cases, it is difficult to organize them in a rational manner, optimally identifying target groups and ways of indemnification. A point can be made to replace fortuitous and costly relief and assistance for disasters granted by governments through compensation systems planned in advance using actuarial methods.[10] It would, therefore, be useful if the agricultural insurance schemes would make provisions for such events, and establish a plan whereby relief could be provided speedily and economically. Administration of disbursements by insurers would help in this task. It is important that disaster relief when given not induce recipients to forego insurance in future, which could be the case when only those farmers who have no insurance get such relief. It may be useful for the State to insist that individuals take out insurance if it is available at affordable rates, and step in with relief only when such cover has been exhausted for those who have purchased insurance.[11] In its report, the Expert Group emphasized that "commercial agricultural insurance should be independent of disaster relief schemes.... Wherever government sponsored relief programmes exist, efforts should be made to progressively integrate them with the commercial agricultural insurance schemes."[12]

2. Livestock insurance

50. Agricultural insurance is commonly associated with crop insurance, and academic discussion has predominantly focused on this line. Such emphasis is understandable, as crop production is the major agricultural activity. At the same time this class of insurance is, however, a most difficult one and demands a heavy engagement from insurers. Hence it may not necessarily be advisable for insurers wanting to penetrate rural areas to start with crop insurance.

51. Livestock insurance has seen broad-based progress in recent years. Many insurance companies of developing countries have designed cover, often on a small scale and without the support or even the encouragement of Governments. Replies to the UNCTAD secretariat's questionnaire showed that 64 per cent of the 44 countries which supplied data had livestock cover, while only 57 per cent or 25 countries had crop insurance schemes. Some years ago, livestock insurance contributed already 5 per cent to total premium income in China; in Algeria, it was 6 per cent. In India, nearly 18.5 million animals were insured in the period 1988-1989.

52. As animals such as cows and oxen are important productive assets for a farmer, the significance of livestock insurance is quite understandable. Insurance is a mechanism to protect the wealth and assets of a person and a society. In ancient times, particularly under nomadic or semi-nomadic conditions, a farmer's wealth and standing in society was based on the number of cattle he owned. Since livestock was the most valued asset, it was a natural object for insurance. It is therefore hardly surprising that livestock insurance is considered to have been the genesis of agricultural insurance. It probably was one of the earliest forms of insurance protection provided, and it is believed that some form thereof was practiced in ancient Babylon. In several countries of Europe, the insurance of livestock has been undertaken on a mutual basis for over 700 years.

53. Although in modern agriculture the importance of livestock has decreased in overall terms, it is not at all negligible. Many farmers keep livestock, in addition to growing crops, so as to have an alternative source of income. The animals represent considerable wealth, particularly if measured in relation to the total productive capital owned by farmers of developing countries. Furthermore, efforts are being made in many countries to improve the genetic quality of indigenous animals by importing animals of high-yielding foreign breeds. These animals have a high value but at the same time also represent a high risk. They may not adapt to a new environment and climate without problems.

54. This seems to be a promising field for insurance. In fact, livestock insurance tends to be one of the simplest of the various forms of agricultural insurance. Although administrative expenses tend to be higher than in other lines of business, the loss ratio lies within manageable proportions. To give some examples: during 1988-90, the loss ratio was 28.1 per cent in Ethiopia, 81.3 per cent in India, 41.1 per cent in Kenya, 63.6 per cent in Pakistan, 44.8 per cent in Sri Lanka, and 18.82 per cent in Zambia; in the Philippines the

percentages were 39.52 for individually owned animals (backyard scheme) and 100.74 for commercially oriented groups of 14 or more animals.

55. For the viability of livestock insurance it is important that schemes be based on a detailed knowledge of the operational processes involved and on technical expertise and that extensive use be made of veterinarians. Insurers should insist on minimum health standards and on adequate animal husbandry practices, in particular that the animals be vaccinated against the major diseases. This seems to be the case in many countries. The replies to the UNCTAD questionnaire have shown that 25 countries apply health standards and practices for the animals insured and, of these, 11 require a health certificate and a regular check-up, while seven require a health certificate only and four a regular check-up.

56. Management practices at farm level are another decisive factor for the operational success of the insurance cover. It must be possible for the insurer to impose strict conditions and exercise a certain control; there must be assurance that due attention is paid to risk management. It is also necessary to develop adequate systems of loss adjustment.

57. Usually it is insurance of cattle which is first offered, in view of the fact that cattle are among the most valuable of a farmer's assets and hence hold the greatest economic importance. After successfully managing cattle insurance, companies have often continued by developing cover for other animals such as sheep, hogs, goats, horses, ponies, mules, donkeys, camels, and elephants.

58. Perils insured against are essentially death of the animal caused by accident or disease. The sum insured corresponds usually to the market value of the animal. In many developing countries, livestock insurance is closely linked to credit extended by a financial institution, and the sum insured has to be at least equivalent to the amount of the loan. It could also be higher, to represent the market value of the animal. To prevent over-valuation at the inception of insurance, the valuation has normally to be checked by a veterinarian. Claims are usually settled on the basis of the sum insured, and not on the basis of the animals's value at the time the loss occurs.

59. In quite a few countries, livestock insurance, including schemes of poultry insurance, is self-supporting and commercially viable, even when provided to the traditional farming community. This was the case in 18, or 64 per cent, of the 28 countries that reported having livestock schemes. Only four countries, namely Ethiopia, Israel, the Republic of Korea and Nigeria reported that their schemes were subsidized by their Governments.

60. Besides livestock insurance, avicultural insurance is another area with great potential for growth, since chicken/poultry farming is expanding rapidly in many developing countries. While having its own characteristics and requirements for technical expertise, many of the points made for livestock insurance also apply to this line of business. As regards aquaculture, another line gaining importance in developing countries, certain very specific issues

need to be taken into account by insurers. On the whole, however, it is a field with good possibilities for innovative insurers.

3. Other covers suitable for rural areas

61. Once a foothold has been established in rural areas through livestock, crop or fishery insurance, other suitable types of insurance can be introduced. As building up the required infrastructure for livestock and crop insurance can be costly, it is economical to offer more than one line of insurance. These can be other agricultural production policies or conventional insurance covers which have been adapted to life and work in the countryside. There is substantial scope for general insurance business in non-urban areas and for production activities linked to agriculture. A package approach could be followed, by offering a basic insurance contract to which contracts covering other lines could be added on an optional basis.

62. The variety of other insurance lines of potential interest to farmers and the rural population is great. Farm houses, stables and barns, greenhouses, agricultural machinery and equipment, pump sets, windmills, solar cookers and heaters, biogas units, assets for handicraft and household production and for the various activities connected with the farm sector are all a potential source of business. Other insurance covers which could be offered include transport of agricultural produce and insurance for storage. The latter could include the deterioration of stocks in cold storage owing to the breakdown of refrigeration facilities, a line which is already offered in some countries. Liability insurance for the owner of a farm is another line, including liability to workers, and insurance covering accidents and hospitalization. Life insurance in a simplified form also offers ample scope. The limits of such cover are likely to be modest and a rating structure would be easy to evolve, based on the size of the farm, the nature of the risks, and the number of persons employed. Finally, agricultural insurers could cover the transport of exported agricultural products.

63. Instead of developing specialist insurances for rural areas, insurers could start with marketing their traditional products. These would need to be simplified to meet the needs of the rural population. Once certain key insurance services have become accepted by the rural population, insurers can expand their activities and develop specialized producer services for agriculture. The approach chosen would depend on the particular situation of a country and its insurance industry.

Chapter IV

BUILDING UP PARTNERSHIPS TO INTRODUCE AND OPERATE AGRICULTURAL INSURANCE COVER

64. Since agricultural insurance is largely untried, and its introduction expensive and beset with various organizational and logistical problems, insurers

should establish alliances with other players active in rural areas. Strong ties should, in particular, be forged with the relevant government departments, for example ministries of agriculture, public agencies and institutions catering to the rural areas, and with universities and research institutes concerned with agriculture. One of the basic requirements of viable agricultural insurance schemes is their technical soundness, and considerable insights can be gained from specialized agencies. Insurance companies for their part could provide valuable input to such agencies, for example through the data and statistics they are or could be collecting in various fields, for example regarding weather conditions, animal diseases, etc.

65. Particularly linkages to agricultural extension services should be pursued. Their interest and that of agricultural insurers coincides to a considerable extent. Both are keen to see that farmers utilize better production methods, that they use appropriate seeds, fertilizers and pesticides, apply them at the right time and employ appropriate risk management measures. The tasks of the Government of advising and monitoring farmers can be effectively supported by insurers, although they should not be required to make up for deficiencies in basic facilities.

66. Insurers should also try to establish linkages with other actors, like cooperatives, trade unions, trade associations, processing plants, suppliers of inputs such as fertilizer, pesticides, seeds and farm equipment, with marketing organizations, and with banks and rural credit institutions. Distributors of agricultural implements or of seeds might, for example, be used to market the appropriate insurance covers. They could all serve as important channels in establishing the necessary distribution network for extending insurance to rural areas. It is possible to coordinate part of the administrative work with some of these agencies and to cooperate on practical tasks.

67. Cooperatives in particular can be a natural bridge between farmers and the insurance companies. Many cooperatives are anchored in rural areas and are in close touch with local needs. The large network of cooperatives that exists in many countries in different fields, such as crop production, livestock, aviculture, aquaculture, credit, marketing and transport can reach rural areas more readily and become a focal point for insurance servicing. Insurance can be added to their other activities. They can, for example, act as intermediaries placing business with insurers. In Zambia, for example, the Apex Agricultural Cooperative is an agent of the public insurer which is operating the agricultural insurance scheme. A 10 per cent "administrative discount" is given, for which cooperative officials identify groups to be insured, list the farmers in these groups, and calculate sums insured. They also carry out random crop inspections and compile data on the actual yield achieved at the end of the season for the purpose of claim settlement. Cooperation with cooperatives has another advantage in that the moral hazard is contained, as members of a cooperative tend to watch each other rather closely. False or exaggerated claims are frowned upon when farmers know that insurance rates provided to members of a cooperative take claims experiences into account. Such peer pressure has proved to be very effective. Another asset of cooperatives is their traditional emphasis on

educational and awareness-building activities, which are specifically attuned to realities in rural societies.

68. As regards marketing, agricultural fairs and exhibitions offer good possibilities to present insurance products. Various means have been used with success: mobile vans carrying a simple display on the advantages of agricultural insurance; the occasional showing of movies in rural areas after which agricultural insurance is presented; radio advertising in prime time. Good publicity has also been achieved by arranging public gatherings, where larger claims payments are handed over in the presence of the farming community, so that the benefits of being insured become obvious. Although hindered by the lack of modern means of communication, marketing can benefit from the much greater coherence of rural communities and the fact that distractions are few in the countryside of developing countries.

69. In many developing countries, the Post Offices keep peoples' savings and also provide life assurance at low premium rates. Possibilities of establishing working arrangements with Post Offices should be explored. Many of these offices are located in remote areas deep in the countryside, where formal representation by the insurance industry is difficult.

Chapter V

LINKAGES TO RURAL CREDIT INSTITUTIONS

70. The best opportunities for insurers to forge useful alliances may lie in teaming up with rural finance institutions. If farmers are to increase productivity, they need loans to buy high-grade inputs and more modern technical equipment. Banks have, however, been reluctant to finance farm operations, owing to the insufficient security farmers can offer and the high risks inherent in agricultural production.

71. There is a definite synergy to be achieved by cooperation between agricultural insurers and rural banks, especially for agricultural insurers that want to reach a great number of farmers. From this point of view, it is the agricultural credit which enables many farmers to increase productivity and produce beyond their own needs for the market, becoming economically viable and to enter the monetized economy. It is these farmers who become insurable. From the bankers' viewpoint the farmers whose production is insured offer better security. In a simplified way one could say that credits help to make farmers insurable and insurance helps to make farmers credit-worthy.

72. Banks and insurers can increase the number of clients for each other. Banks benefit because, with the protection of an agricultural insurance cover, farmers are more inclined to take risks and purchase modern tools and inputs. However, for this they usually need credit. This raises the number of bank clients.

73. Banks thereby not only gain new debtors, they may also gain new creditors. With reliable insurance cover, farmers are less inclined to keep their assets at home in the form of liquidity or gold to protect against harvest failures which they know from experience will eventually occur.[13] With the security of insurance and the appropriate incentives, farmers may become more disposed to make their funds available to the rural banking system. Although the savings of individual farmers may be very small, their great number is a factor which makes a difference and so enhances the volume of funds available to the credit system. Some of these funds may be channelled back through the banking system into rural areas, particularly if the improvement of agricultural productivity warrants loans on a commercial basis.

74. Banks on their side are able to bring new clients to insurers, especially if insurance is obligatory in conjunction with taking a loan. This is the case in many developing countries and it provides many advantages to insurers. They win new clients without having to make any marketing efforts or having to rely on the traditional agency force. New strata of the population who so far have no notion of insurance come into contact with it. This opens up further possibilities for insurers to sell in the course of time more than just specialized agricultural covers.

75. For an insurance company it is therefore often worthwhile to work in close cooperation with a rural credit institution. Both need to verify that their clients are reliable, the clients' activities viable, that losses from negligent and inappropriate management are avoided and proper risk management is practiced. This verification as well as the ongoing monitoring operations are not cheap but cooperation relieves some of the burden for both bank and insurer. It should, however, not invite either of them to forego their own specific responsibilities.

76. Credit institutions and insurers thus have the potential to mutually strengthen each other when penetrating markets in the countryside and their attendant uncertainties. In the specialized and commercial sector, farmers will usually be able to get credits from private banks. When directed to the semi-commercial and subsistence sector, such credits are often provided by the government through public or via private credit and banking institutions, and bear favourable interest rates. If insurers can link up to such credits, whether from public or private sources, they have an entry into rural markets.

77. In many countries the provision of crop or livestock insurance covers has already been linked to the granting of agricultural credit. In answer to the UNCTAD questionnaire, 36 out of 44 countries/territories reported that banks require insurance cover when providing the relevant credits to farmers. In some countries, the farmer has to provide a life insurance policy when taking out a loan; this is the case especially when no agricultural insurance cover is available.

78. Despite the potential which alliances between rural banks and insurers seem to offer, it should be pointed out that insurers should avoid becoming too closely allied to banking operations. When customers see insurance as only a

means to guarantee the loan from a bank, they will not be very keen to insure themselves, arguing that if ever they become bankrupt they will not care whether the bank is paid back the credit. Such thinking precludes the emergence of an insurance culture. Insurance has its own right of existence and should provide unique and clearly identifiable benefits to its customers.

79. It is important that in subsidized schemes, where insurance is linked to the granting of credits, the possibilities should be explored to have the insurance cover not just the credit. When a total loss occurs, it is not only the loan which should be paid back to the bank but the farmer should also get an additional minimum amount to ensure his living expenses.[14] Or, alternatively, the bank should be ready to extend a new credit to the farmer when, not due to his own fault, his crop has been destroyed or his livestock lost. Only then will his productive capacity be maintained, which is one of the underlying aims of the subsidization.

80. It should be emphasized that the best way to make agricultural insurance relevant to farmers is in combination not only with rural credits but with a whole package of agricultural extension and support services. The latter comprise a great number of inputs and services which the government should be ready to make available or upgrade. For such tasks, development assistance can often be mobilized, particularly for the poorer developing countries. Insurers should see to it that they are included in any strategies for the development of agriculture and the rural areas from which, so far, they have been so conspicuously absent.

Chapter VI

LONG-TERM BENEFITS FOR THE INSURANCE INDUSTRY

81. Development of suitable insurance policies which meet the requirements of farmers and of the population associated with this important sector will help expand the small insurance markets of developing countries. Narrowness of their markets is a frequent complaint heard in insurance circles of these countries. Well-devised agricultural insurance schemes that respond to the needs of an important segment of the working population will broaden the field of activities of insurers. They will establish a larger base of risks and stabilize insurance portfolios. Risks are less sophisticated technologically and can therefore be handled with less difficulty by local expertise.[15] When losses occur they often require only local inputs and thus tend to demand less foreign currency than losses affecting the industrial and modern sector of the economy. Reinsurance therefore does not need to be placed abroad for reasons of obtaining the necessary foreign currency for replacement. These factors increase the possibility that insurers retain a good part of premiums domestically.

82. Reinsurance in overseas markets is certainly necessary, particularly if the risks covered are prone to natural catastrophes and accumulation is great. Reinsurers have been reluctant to take on agricultural risks, but if a modest

beginning is made with realistic policies, reinsurance should become available. Some European reinsurers have in recent years shown a growing interest in viable areas of agricultural insurance from developing countries and have given valuable advice and training in support of the establishment of suitable schemes. For heavily subsidized schemes, the State will probably remain the reinsurer of last resort.

83. Agricultural insurance may also lend itself to more regional cooperation among developing countries. The similarity of climate and agricultural production methods, and of rural habits and traditions among neighbouring developing countries will provide a good basis for mutual cooperation among them. This could provide a greater spread of risks, reduce accumulation and stabilize portfolios. It may help increase regional retention.

84. Insurers in developing countries should evaluate agricultural insurance also in the context of the present opening of insurance markets of developing countries as a result of general liberalization policies. Large and experienced foreign insurance companies may enter their hitherto protected markets. Such companies will essentially compete in urban markets and in industrial fields where competition from domestic insurers is already great.[16] Insurers in numerous developing countries have voiced apprehension over whether their smaller and often under-capitalized companies can compete effectively. The latter might, however, have a competitive edge in rural markets, based on their familiarity with cultural and traditional values and habits, their knowledge of local languages, not to mention their various connections with the rural population and the trust they are able to build up with leading village personalities. Foreign insurers have difficulty winning acceptance in such an environment and will usually dread the time and costs involved. Servicing the needs of rural markets is relatively labour-intensive. This again is where many domestic companies also have an advantage. Their awareness of local conditions may have more relevance in rural areas than in the more anonymous atmosphere of cities and the relatively standardized environment of industrial complexes.

85. It is evident that opportunities for insurers to penetrate into the countryside on a commercially viable basis depend to a significant degree on the nature and success of a country's overall agricultural policies. Since many developing countries have assigned priority to the advancement of agriculture, insurers should follow developments in this sector closely, ready to grasp chances when they arise.

Chapter VII

LONG-TERM POTENTIAL DEVELOPMENT BENEFITS

86. Insurers should regard efforts to develop agricultural insurance as an investment in the future. They should be able to mobilize some government support for this, particularly if they work in connection with the rural banking system.

87. While the contribution of banking to rural development is well recognized, that of insurance is not. The insurance trade of developing countries has not yet invested sufficient time and energy into convincing governments and development planners of its strategic relevance for agricultural development. One of the consequences is that governments have often not permitted a price setting for agricultural products which would include the costs of insurance. It could be argued, however, that prices for any economic activity should be able to include a reasonable amount of insurance. Agriculture, as an economic activity, should not be treated as a case sui generis. There is, in fact, no intrinsic reason why insurance should remain absent from rural activities. If it has proved to be of relevance to a great variety of economic activities worldwide - and there are in fact few economic activities besides agriculture which do not carry some insurance protection - there is no reason why it could not also be associated with agricultural production, as long as the latter is truly an economic activity.

88. If prices arrived at competitively cannot include the cost of some insurance cover, at least over the long term, the economic viability of the respective agricultural activity could possibly be called into question. In a system of government regulated agriculture and price-setting, the inclusion of a margin for insurance protection would reflect, inter alia, the importance accorded to the protection of the rural population against economic adversity.

89. If no provision is made for a reasonable amount of insurance cover via the price mechanism, subsidization is the only way to make insurance available to farmers. While the subsidization of agricultural credits is widely accepted, the subsidization of agricultural insurance schemes has long been an issue of contention. But if prices of agricultural products, particularly foodstuffs, are not determined by market forces but by government policy, it is precipitous to condemn prima facie subsidization of insurance premiums for farmers as being an uneconomic use of resources without examining the specific insurance scheme. The Expert Group has drawn attention to the fact that support for agricultural insurance, including premium subsidies, continues to be provided by governments in certain developed countries,[17] as a way of spreading risk across the economy and assuring continuity of agricultural production.

90. From a development point of view, a well-devised agricultural insurance scheme has a great deal to offer, even if it requires some subsidization. Crop insurance, for example, can become a tool of a country's agricultural policy. If crop specialization is wanted, insurance can promote this. Planting only one crop exposes the farmer to high risk if this single crop meets with adversity. When no insurance is available, the farmer will try to protect himself by diversifying production, for example, by growing products for self-consumption, like vegetables and other food, instead of cash crops or staple foods. This in itself is perfectly rational economic behaviour. However, it may not coincide with the agricultural policy of the country, which may consider it more useful to plant certain cash crops, or to specialize in certain staple foods. Specialization of production is usually more intensive and more productive. It has the additional advantage of integrating farmers into the monetized economy,

while production for self-consumption keeps agriculture in the subsistence economy, with only minimal linkages to other sectors of economic activity.

91. The point has been made that for the country as a whole it would be better if the farmer did in fact diversify his production, since, it is argued, reducing the risk for the individual farmer would reduce the risk for the country as a whole. However, the loss to the country through higher exposure to risks can be offset by the increase in productivity associated with the specialization of production.[18] Insurance protection may also result in a certain stabilization of output of a particular crop, since farmers will not vary production as much after a bad year than they would if they were not protected. This increases the food security of the country and/or the reliability of exports and facilitates economic planning. Specialization also encourages the adoption of more modern production methods.

92. Generally, agricultural insurance tends to encourage more rational production and planting decisions by farmers. Insurers will not be willing to grant cover for crops planted on marginal land, or unsuited to specific regions. By subsidizing insurance, a country can provide some support for its agricultural policies, and provide incentives to extend the production of a certain staple food crop or of drought-resistant and traditional crops in areas unsuited to other crops. Crop insurance can, however, provide only one of the incentives that influence planting decisions, and must be associated with other effective policies employed to reach given objectives. Generally insurance can only make a useful contribution and avoid extensive subsidization in the context of long-term viable agricultural strategies.

93. Another development advantage provided by agricultural insurance lies in the fact that it may lead to an upgrading of agricultural extension services provided to farmers. Since insurers rely on effective rural extension systems, they will put more pressure on Governments to provide the necessary basic infrastructure and services for agriculture and insist that the relevant institutions do their work effectively. The agricultural insurance company/agency will not fail to point out weaknesses in the existing public machinery, and will be ready with suggestions for improvements. In fact, insurance companies operating agricultural insurance schemes often provide certain extension services themselves, in giving technical and operating advice to farmers and monitoring its application. Whereas before it was only the State's extension service which had the task of supporting farmers with technical expertise, now this burden is partly also shouldered by the insurance company, possibly in cooperation with rural credit institutions.

94. Insurance companies also encourage the introduction of basic risk management practices in the rural setting. In many cases, the provision of advisory and risk management services by insurance agencies proves to be more effective than if operated by State services. The State can only advise, admonish but usually not punish. The insurance company in contrast holds both "a carrot and a stick", which encourages economic discipline. The farmer who, for example, experiences a fire that destroys part of his crop, will not be fully

indemnified by the insurance company unless he has taken care to maintain the required firebreaks. In the course of time, word will spread through farming communities that it is advantageous to apply the stipulated risk management practices and follow recommended farming methods. All this is beneficial for the development of successful agriculture.

95. Development benefits can, in particular, be expected from the association of insurance with a scheme of rural credits. Schemes well-interlinked and fine-tuned to the needs of a particular rural target group can tackle a number of deficiencies obstructing the growth of agricultural productivity. Rural credit is a decisive input; thus its facilitation through insurance is in the interest of the country as a whole. One obstacle to increasing agricultural productivity has been the risk aversion of farmers. Agriculture is a high risk business and the farmer is an entrepreneur who often works without any "safety net". While insurance cannot totally eliminate the risks, well-devised schemes can mitigate them and possibly shelter the farmer from the most serious disruptions to productive capacity. Insurance can thus encourage the farmer to become more venturous. An ability and willingness to buy better implements, in particular, may help to raise productivity and increase over time the flow of investments to rural areas.

96. A counter-argument put forward[19] is that if the introduction of new technology was really economically advantageous, it should commend itself unaided for use. This presupposes, however, a high degree of market perfection, which is not a feature of the agricultural sector of developing countries. Moreover "in a typical developing country, most farmers operate on a scale of production and income barely above subsistence level. They have little margin for error, for their survival is at stake. Consequently, even if they have heard of new and productive agricultural technology, they may be reluctant to use it owing to the uncertainties involved in taking on higher levels of debt and expenditure."[20]

97. In this context it should be recognized that rural credits alone, if not backed by appropriate insurance, can induce a decapitalization of farmers.[21] If farmers have to pay back credits after they have suffered a bad harvest, they may be obliged to sell their capital assets and/or even their land. This decreases overall agricultural output and could induce farmers to migrate to the cities, a consequence which the provision of rural credit is often, explicitly or implicitly, intended to avert.

98. It may be argued that, in practice, farmers often rely on the fact that governments would not request repayment of loans in cases of bad harvest. This attitude erodes, however, the repayment morals of rural communities and should therefore not be encouraged, as it prevents the build-up of an efficient rural credit system where obligations are honoured by all sides. If governments want to increase agricultural productivity and forestall further migration of farmers to the cities, it may be more economical and rational to provide a limited subsidization of agricultural insurance schemes, for example through a premium subsidization, than to accept loan defaults and disorganized or lax credit

repayment, with their tendency to reinforce each other over time and to weigh heavily on government budgets.

99. The argument for the merits of some subsidization of agricultural insurance may even be carried one step further. It has been contended that artificially low interest rates of rural credits, when subsidized by government funds, give wrong signals to the farmers who feel that they are considered poor and can expect special treatment, including the assumption that they do not need to pay back the credit.[22] Furthermore, interest rates below market rates for rural lending activities will not attract commercial capital to the countryside. Instead of heavy subsidization of interest rates, the scarce funds which governments have at their disposal for rural development could be used to provide a limited subsidization of agricultural insurance schemes. The encouragement of the introduction of better technology - which good agricultural insurance schemes can induce - makes it possible for the more inventive and entrepreneurial farmers decisively to increase their output. This then allows them to pay higher interest rates. At the same time the fact that there is an insurance scheme would make credits more secure and therefore reduce the risk element as reflected in interest rates. The latter could therefore be relatively lower than they would be without the safety net of insurance.

100. In practice, some subsidization of both rural credits and agricultural insurance schemes may be necessary to make them effective in helping farmers increase productivity. By associating both credits and some insurance cover with an integrated rural finance strategy, the total costs of subsidization may not increase while the effects would be much greater than otherwise, i.e. by heavily subsidizing just one element of a financial strategy. It would seem that research in this area might be quite rewarding and no doubt merits more attention than it has received so far.

101. The extension of insurance to agricultural production and the rural population connected with this sector would make a positive contribution to the alleviation of rural poverty. Under the right conditions, insurance schemes could offer some protection for an important segment of the population which has so far enjoyed little economic security. Agricultural insurance would also help to increase self-sufficiency in food production, which is one of the policy aims of many developing countries. It has, however, to be recognized that an insurance industry which is expected to be economically viable cannot be burdened with non-commercial goals. In devising policies for farmers, insurers cannot, for example, be required to take account of effects on food self-sufficiency or poverty alleviation. However, even by developing and offering agricultural insurance cover which is viable from the insurer's point of view, such goals may be furthered.

102. By drawing attention to these general development aspects of agricultural insurance, insurers could encourage governments to look into the possibilities of improving the general environment to make it more conducive to the introduction of such lines into the countryside. Better enforcement of rules and statutes relating to agricultural production, support from financial

institutions and foreign-exchange control authorities for reinsurance transactions, and the development of skilled manpower in agricultural insurance through specialized training and education are further supportive measures which were advocated by the Expert Group.[23]

103. Insurers in developing countries which are exploring ways of extending the market for their products should try to engage in discussions with their governments so as to find the best ways of promoting agricultural and rural insurance. They should also try to be associated with agricultural development schemes sponsored by international agencies and donor governments. Many such schemes might be strengthened by some element of insurance, if only through the mere fact that insurance protects the assets supplied by foreign assistance and permits a replacement in case of damage or loss. Insurance companies of developing countries are increasingly able to assume more and larger domestic risks or to join for this purpose in an arrangement with overseas insurers. A great deal of information and awareness-building must, however, still be done on their side, as the potential contribution of insurance is often not obvious even to development experts. Nor is the local insurance potential and expertise which has emerged in developing countries over the years necessarily known by foreign donors.

104. To find ways to associate insurance effectively with agricultural production and related activities requires substantial effort, not only on the part of insurers, their associations and regulatory offices, but also on the part of governments and public offices charged with agricultural development. Benefits for the insurance industry, rural communities and the agricultural production sector should make such efforts worthwhile. It is to be hoped that reinsurers seeking to diversify their portfolios[24] and donor countries keen to encourage agricultural development in developing countries might cooperate in this endeavour by ascertaining that this promising field is given its rightful priority in their respective commercial and development strategies.

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NOTES

1. Gilboa, D., "Technical aspects in the management of agricultural risks". Paper presented at ALASA Conference, Madrid, September 1989, p. 2.

2. Dick, W.J.A., "Guidelines for the Assessment of Agricultural Projects and Enterprises for Insurance Purposes", Background Paper for GAIF Agricultural Seminar, Damascus, October 1987, p. 4.

3. Goenka, Ashok, (based on discussions in March 1993).

4. "Report of the Group of Experts on Agricultural Insurance in Developing Countries" (UNCTAD/SDD/INS/4), 2 February 1993, para. 16.

5. Ray, P.K., A Practical Guide to Multi-Risk Crop Insurance for Developing Countries, Oxford and IBH Publishing Co. Pte. Ltd., New Delhi, 1991; Agricultural Insurance: Theory and Practice and Application to Developing Countries, 2nd edition, Pergamon Press, Oxford, 1981; Economics of Crop Insurance, Central Publishing Concern, Calcutta, 1985.

6. See, inter alia, "Report on the Expert Consultation on Crop Insurance", FAO, Rome 1986; "Second Expert Consultation on Crop Insurance", FAO, Rome 1989; Roberts, R.A.J., Gudger, W.M., Gilboa, D., Crop Insurance, FAO Agricultural Services Bulletin 78, Rome, 1989.

7. Kasten, Erich (based on discussions in April 1992).

8. A proposal for a "National Calamity Insurance Scheme" is, in fact, under consideration in Pakistan, for example, whereby the loss to a farmer due to one of the named perils is indemnified only if it exceeds 75 per cent of the expected yield. Information provided by Mohammed Choudhury, October 1991.

9. Putty, M., (based on information provided in June 1992).

10. Montalvo Esteban Tejera, "Agricultural Insurance in Spain", in: "Final Report, Forum New Developments in Agricultural Insurance", Madrid, Spain, 19-23 September 1989, p. 18.

11. A similar arrangement exists for agriculture in France.

12. "Report of the Group of Experts...", op.cit., para. 4.

13. UNCTAD, "Insurance in developing countries: Review of developments in 1986-1988" (TD/B/C.3/229), p. 19.

14. Kasten, Erich (based on discussions in April 1992).

15. Gallis-Quednau, Marion: "Agricultural Insurance in Developing Countries" Paper delivered at the Symposium on Agricultural Insurance held by the Société de Réassurance des Assurances Mutuelles Agricoles (SOREMA), Paris, 6-8 April 1993, p. 21.

16. UNCTAD, "Privatization of insurance enterprises and liberalization of insurance markets" (UNCTAD/SDD/INS/3), 19 January 1993.

17. "Report of the Group of Experts...", op. cit., para. 6(b).

18. Ripoll, José, "Contribution of agricultural insurance towards economic development", UNCTAD Reprint Series No. 7, p. 3.

19. See, Roberts, R.A.J., "The use of crop insurance as a financial tool in development", paper prepared for consultation, January 1986, FAO, Rome, page. 4.

20. UNCTAD, "Crop insurance for developing countries" (TD/B/C.3/136/Rev.1), 1980, page 3.

21. Von Stockhausen, Jochen, "Agrarkreditpolitik in Eutwicklungsländern", in Berichte über Landwirtschaft, Vol. 61, November 1983, page 625.

22. Ibid., page 629.

23. "Report of the Group of Experts...", op. cit., para. 9.

24. On reinsurance aspects of agricultural insurance see, inter alia, Heinz D. Kohwald, "Reinsurance of agricultural risks", in: "Final Report, Forum New Developments in Agricultural Insurance", Madrid, Spain, 19-23 September 1989.